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SOME FORMS OF ERUPTION SIMULATING
SCARLATINA.

BY
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FROM
ARCHIVES OF PEDIATRICS,
September, 1895.

Mr. F.G. Finley

JUN 23 '01

SOME FORMS OF ERUPTION SIMULATING
SCARLATINA.*

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Montreal.

In presenting the notes of the following cases to this society I feel that an apology is in order. There is nothing new in what I have to say, and probably were I to search the columns of our medical journals for a few years back, I might find cases similar to the ones I now present to you.

My chief object in writing, when I proposed the paper, was to emphasize the fact, recognized I admit in some text books, but very much overlooked by the general practitioner, that the mere presence of a scarlatinal rash, going on to desquamation and associated with pyrexia, does not of itself warrant the diagnosis of scarlet fever; not even although it should present a certain amount of superficial tonsillitis. Cases will occasionally arise in which with our present knowledge an absolute diagnosis is impossible until some days have elapsed. In such the public should be educated up to the necessity for caution, and to the recognition of the difficulties that may occasionally lie in the way of a prompt decision, and at the same time the physician should be extremely cautious for the first few days lest he too rashly condemn a child to a six or eight weeks' quarantine, and a family to all the suspense and worry connected with such a pro-

*Read before the American Pediatric Society, Virginia Hot Springs, May 28, 1895.

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ceeding, when caution, time, and frequent careful observations on the course, and exact symptoms of the attack, might make it evident that prolonged isolation was unnecessary. Moreover, every hospital, especially every infectious hospital, should have numerous isolation rooms where doubtful cases can be detained for a time until the diagnosis becomes absolute. On receiving the programme for the meeting, however, I found I was put down for a paper on *forms of eruption simulating scarlatina*. I have, therefore, slightly altered the arrangement of my notes to make them correspond more exactly to the subject allotted me.

Among the simplest of the scarlatiniform rashes, and among the least liable to give rise to serious difficulty in diagnosis, are the scarlatiniform erythemata which occasionally result from the administration of certain drugs.

That an erythema closely resembling scarlatina may be produced by belladonna is acknowledged by all, but it is perhaps not so often seen as we might expect, considering the heroic doses in which the drug is occasionally given to children. A case in which this erythema was particularly well marked, occurred recently in Montreal, for the notes of which I am indebted to my friend Dr. A. S. Wade.

On the seventh of this month he was called to see a child five years old who had eaten surreptitiously fifteen sugar-coated granules of atropine, each containing one-one hundred and twentieth of a grain, in all one-eighth of a grain of atropine. On arrival he found the child in convulsions with skin dry and hot, and completely covered, literally from crown to sole, with a diffuse bright scarlatiniform rash, punctate in character, disappearing momentarily on pressure, and leaving a distinct white line after the finger nail drawn rapidly over it. The pulse was 160, weak and compressible. Before the convulsion the child had been delirious, and the pupils widely dilated. Under careful and prompt treatment, the symptoms abated, and on the doctor's visit on the following morning, the rash had faded, and the child was running round.

Salicylic acid and its compounds are more frequently credited with producing an urticarial rash than a scarlatiniform erythema. The following are the brief notes of a case in which a rash distinctly scarlatiniform in character was apparently due to this drug:

John H., aged seventeen, an anæmic lad, entered Montreal General Hospital, April 29th, suffering from ill-defined rheumatic pains, and very slight pyrexia. Under a few days rest in bed these passed away, and he was placed upon a preparation of iron. Following a sudden change in temperature a recurrence of the rheumatism took place, for which sodium salicylate, in fifteen grain doses, was ordered. On the third day he complained of a feeling of fulness in the head, while on the neck and shoulders, upper part of chest, and the flexor surfaces of the arms appeared a diffuse erythematous rash. By the following day the character of this rash was more pronounced. It covered all the trunk, extending as low as the inner surface of the thighs with a distinctly scarlatiniform erythema. On the forearms and lower part of the thighs it presented the appearance of scattered, slightly elevated, round or oval, spots, most of them of rosy color, but some of them with paler center, more urticarial in appearance, and in places tending to coalesce. There was no pyrexia, the tongue was clean, and the throat normal. The salicylate was now stopped, and *post* or *propter*, the rash faded, so that by the following day it had almost disappeared. No desquamation was noticed.

The rashes of phenacetin and phenazone are generally too patchy in character to give rise to any suspicion of scarlatina. The following case, however, which I attribute entirely to the action of the drug, gave rise for some hours to fear lest it might prove to be scarlatina.

Laura T., aged four years of neurotic temperament, and with a skin sensitive to slight irritation, was taken ill in the afternoon of April 11, 1893, with vomiting, severe headache, and pain referred to the right side. The child had been out for a long drive the previous afternoon with a sharp northeast wind blowing. I saw it about three P.M. and found a temperature of 101.5° F., pulse 120, respiration 26, and tongue slightly furred. The bowels previously had been quite regular, so a simple saline was

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prescribed. In the evening I found the child very restless, complaining of headache and pain in the side, but of both rather indefinitely. Careful examination revealed little beyond feeble breath sounds; the temperature was 102.8° F.; the pulse-respiration ratio was not much disturbed. I prescribed a four grain phenacetin powder. Early next morning I received an urgent message that the child was covered with a rash, and that the mother feared scarlet fever. I found the child easier, but the neck and upper part of trunk was covered with a distinct red rash resembling scarlatina. At the lower edge of the rash and on the lower limbs small round oval, erythematous spots appeared with definite and slightly raised margins. The tonsils were reddened, but not the soft palate. The temperature was 102° F., the pulse 108. By the afternoon the rash had begun to fade. A painful cough developed, and by the following morning indications of a distinct effusion were present on the right side. It ran a very rapid course, and I had to perform paracentesis on the sixth day owing to rather alarming pressure symptoms. I may add that in this child quinine, on two separate occasions, given in small doses, produced an urticarial rash.

Copaiba may also in my experience give rise to a rash which may in some degree resemble scarlatina.

Many other drugs are reported as having produced a scarlatiniform erythema. Among the more important, are oil of turpentine, iodoform, arsenic, chloral hydrate, mercury, santolin, ipecacuanha, sulphur, strychnine, and iodine. I have not myself seen a case resulting from any of these.

In an allied group to the rashes produced by drugs, we may place those transitory scarlatiniform erythemata due probably to the accidental absorption of some toxin from the alimentary canal, or elsewhere.

Amongst these, I should place the erythema which has been occasionally observed to follow the use of enemata. Several cases are recorded in which, within a few hours after the administration of a simple soap and water injection, a distinct scarlatiniform rash has made its appearance, at first about the neck and shoulders, and has then spread from above downwards over a large surface of the body;

this rash persists for a variable period, is never accompanied by pyrexia, but is generally followed by desquamation. Transitory erythematous blushes, or distinct rashes, are also occasionally noted in connection with cases of tonsillitis and diphtheria, and in septicæmic conditions in children.

The following is a very marked case, possibly due to a somewhat similar cause, which occurred in the family of my *confère* Dr. Gordon Campbell, of Montreal.

W. C., female, aged twenty-one, was suffering from pleurisy on the left side with effusion. On April 9th, the eleventh day of the illness, the amount of the effusion was at its maximum, reaching as high as the third rib anteriorly. There were no symptoms of interference with the circulation, or respiration. That evening the patient complained that an eruption was coming out on her face and neck. On examination by gas light, nothing was evident beyond a little roughening of the skin and flushing of the face.

On the following morning a rash extremely like that of scarlet fever, if not identical with it, was present all over the body, but more intense on the back and upper parts of the trunk. It was of a bright scarlet red color, and on close examination showed a punctate appearance on a uniformly red ground. The skin was not roughened and on drawing the finger nail across it, a white streak was left for an instant. The throat was not injected, nor did it feel at all sore or dry to the patient. The temperature which had been 100.6° F. for the previous two days remained the same. There were absolutely no symptoms referable to the rash except slight itching, which came on in the evening and was more pronounced the following day. The eruption persisted for five or six days, was quite as intense the second day as the first, and then gradually faded, remaining longest on the back. Desquamation consisting of fine branny scales was noticed as occurring on the face and legs and persisted for seven weeks. This patient had scarlet fever in infancy, and my friend was so positive of his ability to exclude definitely any form of infectious fever that he allowed his own child, ten months old, to frequently enter and remain in the room with the patient. No treatment was employed. The patient was taking at the time tritirates of strychnia gr. 1-50 three times a day and was allowed to continue with them. There was nothing in the food taken which could possibly appear

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as the cause of the rash. Both diet and treatment had remained unchanged for the week previous to its appearance. Notwithstanding the rash the patient made a rapid uninterrupted recovery from the pleurisy.

Much more liable to give rise to error are occasional cases of erythema roseola which, although generally resembling rubeola, does occasionally in children assume over the greater part of the body a distinctly scarlatiniform appearance. These cases associated as they may be with a slight elevation of temperature and quickened pulse may give rise to some anxiety. The rash, however, is very transitory and I do not remember having ever seen a case where it was uniformly scarlatinal over the whole body; generally on the limbs or back, the rash assumes a distinctly morbilliform character. The throat in these cases is quite free from any inflammatory appearance.

Acute desquamative dermatitis is another condition under which we may have a well marked scarlatiniform rash, going on to desquamation, and associated with more or less pyrexia. The following is an interesting example, for the notes of which I am indebted to Dr. Shepherd, of Montreal.

Thomas Smith, aged sixteen, office boy, born in England, presented himself on the 9th of July, 1893, at the out-patient department for diseases of the skin, of the Montreal General Hospital. The following is an abstract of the notes taken at the time:

The lad is anæmic, and has never been strong. Three months ago, a scarlatiniform eruption appeared all over the body. It was associated with fever and vomiting. The fever lasted about nine days when desquamation set in, continued for ten days and then the boy got perfectly well. Two weeks previous to the present appearance he had a similar attack, followed by a similar peeling of the skin to that which is now going on. This desquamation resembles very closely that of scarlet fever. There is no redness or inflammatory condition, but the skin is covered with fine white branny scales, and is very itchy. On the palms of the hands and soles of the feet there are large blisters, in size varying from that of a five cent piece to that of a silver dollar. These fill with watery serum and when

this is let out, the piece of skin covering it becomes detached. No scab forms as in ordinary pemphigus. Numerous marks of previous blisters are visible. Over some of these spots the skin is in a cracked eczematous condition. There is also well marked eczema of the sides of the fingers. Under a course of arsenic the condition completely passed away and desquamation ceased. The following year, on the 24th of March the lad returned. Eight days previously he had had a distinct chill; on the two succeeding days he was "out of sorts;" and on the third day he felt sick at the stomach, and afterwards a red, uniform rash appeared and gradually spread until it covered the whole body. He felt hot and feverish. The rash remained out for three days, and began to fade the day previous to his presenting himself at the hospital. On examination the only evidences of the rash at the time were found about the thighs, which were covered with a uniform scarlatinal erythema. Both ears were covered with fine desquamating scales. The tongue was clean, but the papillæ were enlarged. The throat was not reddened and was said not to be sore. His principal complaint was of the itchiness of the skin. The temperature in the axilla was 100° F. A saline mixture was prescribed. The patient returned again in June of the same year with a very similar condition of the skin, and was placed on a course of arsenic, under which recovery took place.

The most important of these scarlatiniform rashes, because most frequently met with, and most liable to be mistaken, are those cases of rubella or rotheln which present a scarlatinal rash. In general, the exanthem of rubella more closely resembles measles than scarlet fever; but every now and then, more frequently in some epidemics than in others, cases arise when it is impossible to give an immediate absolute diagnosis. The rash on the first appearance may show no characteristic difference; pyrexia may be present and a varying amount of tonsillar congestion. In such cases the all important factor for correct diagnosis is time, and the following consideration will influence us :

Even in mild cases of scarlatina we find a more decided disturbance of the nervous system, than in cases with a similar amount of pyrexia in rubella. Drowsiness or marked irritability of the nervous centers generally pre-

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cedes the appearance of the exanthem in the former disease, almost never in the latter. In rubella the rash especially after the second day, and on the lower extremities shows a distinctly patchy condition, with well defined and slightly raised margins, or sometimes assumes an almost morbilliform appearance, which is never the case in scarlatina. In scarlatina the pharyngeal congestion is always more or less present, and always bears a fairly definite relation to the amount of rash. In rubella the exanthem may be well marked while the congestion of throat may be slight, and limited to the tonsils. The post cervical glands are almost always enlarged early in an attack of rubella; if enlarged at all in scarlatina, it is only towards the close of the first week. In scarlet fever, even in mild cases, towards the end of the first week, we have a distinct loss of epithelium on the dorsum of the tongue, giving rise to the well known term "strawberry tongue." This of course is much more manifest in some cases than in others, but I believe always takes place. I have never noticed it in rubella. I cannot, for myself, place the same value on a quick pulse that some writers do. Like other symptoms it may occasionally deceive us. I have seen cases of undoubted scarlatina, where the pulse, though quickened, was only moderately so. The incubation period can only be of value to us where several cases occur successively in the same family.

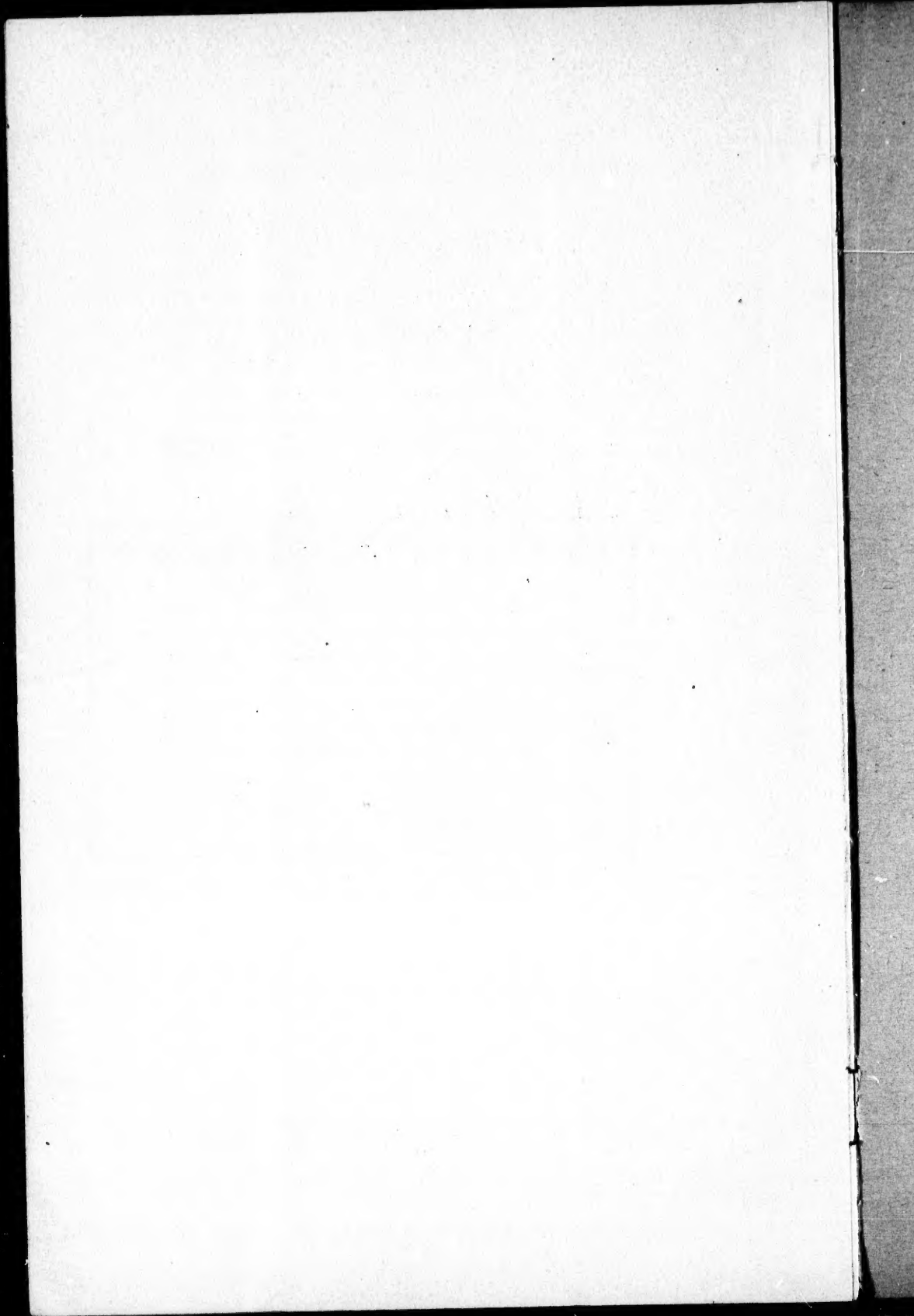
In all such cases we should insist on absolute isolation, but claim time before we express our diagnosis, and as teachers, while emphasizing to students the danger incurred in overlooking mild cases of scarlatina, we should also point out not only the unnecessary expense and wrong to parents involved in stamping every case of scarlatinal rash, as the much dreaded scarlet fever, but also the actual danger to the child affected should it be sent to an infectious hospital. The following is a case in point, the particulars of which were related to me by a friend.

G. H., a lad of about seven years, when seen was

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covered with a well marked scarlatiniform exanthem covering the greater part of the body, which had appeared the day previously. The child did not look ill, and complained of nothing. His temperature was 100.5°, the pulse 96, and the tongue somewhat furred. There was no history of any prodromata. The case was declared to be one of scarlet fever, and the child sent to an infectious hospital. On the following day the temperature was almost normal, but on the next it rose suddenly to 106°F, and the child died in a comatose state the following morning. Two other children in the same family took ill, ten days after the first had been removed to the hospital. There was the same scarlatinal rash, slight pyrexia rapidly subsiding to normal, desquamation on the second week and rapid recovery.

236 MOUNTAIN STREET.



ARCHIVES OF PEDIATRICS

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This is the only English publication devoted exclusively to diseases of infants and children.

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Volume begins with January.
\$3.00 a year in advance.

Subscriptions may begin at any time.
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BAILEY & FAIRCHILD, Publishers,
24 Park Place, New York.